A Palomar Adaptive Optics Coronagraphic Survey of TPF-C Candidate Targets

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We present here a status report on an ongoing Palomar Hale Telescope adaptive optics coronagraphic survey that searches for sub-stellar companions around 28 TPF-C candidate targets. Sub-stellar objects found around such targets could have important implications for space-based observing programs like TPF-C, that wish to image narrow-separation planetary objects; an existent brown dwarf companion, for instance, might degrade the sensitivity of narrow-separation space-based observations by way of its interfering light; or, the existence of an orbiting brown dwarf could affect the likelihood of a narrow-separation planetary orbit. Our survey therefore helps constrain and direct TPF-C candidate target selection, while providing scientifically important substellar companion information on the nearby stellar neighborhood.